

For Research Use Only

CD146/MCAM Monoclonal antibody



Catalog Number: 66153-1-Ig **2 Publications**

Basic Information

| | | |
|---|--|---|
| Catalog Number: 66153-1-Ig | GenBank Accession Number: BC056418 | Purification Method: Protein G purification |
| Size: 150ul , Concentration: 1053 µg/ml by Bradford method using BSA as the standard; | GeneID (NCBI): 4162 | CloneNo.: 4D8A9 |
| Source: Mouse | UNIPROT ID: P43121 | Recommended Dilutions: WB 1:2000-1:20000 IHC 1:1000-1:4000 IF 1:1000-1:4000 |
| Isotype: IgG1 | Full Name: melanoma cell adhesion molecule | |
| Immunogen Catalog Number: AG11855 | Calculated MW: 646 aa, 72 kDa | |
| | Observed MW: 120 kDa | |

Applications

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|---|---|
| Tested Applications: WB, IF, IHC, ELISA | Positive Controls: WB : HepG2 cells, HeLa cells, A375 cells, L02 cells, HUVEC cells, human placenta tissue IHC : human liver cancer tissue, human placenta tissue IF : human liver cancer tissue, HUVEC cells |
| Cited Applications: WB, FC | |
| Species Specificity: human | |
| Cited Species: human | |

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

CD146, also known as melanoma cell adhesion molecule (MCAM) or MUC18, originally identified as a biomarker of melanoma progression, is a transmembrane glycoprotein of 113-130 kDa, belonging to the immunoglobulin (Ig) superfamily (PMID: 8378324; 25993332). Structurally, it consists of five Ig domains, a transmembrane domain, and a cytoplasmic region. In normal adult tissue, CD146 is primarily expressed by vascular endothelium and smooth muscle. CD146 is a key cell adhesion protein in vascular endothelial cell activity and angiogenesis, and has been used as marker of circulating endothelium cells (CECs) (PMID: 19356677). In addition to the membrane-anchored form of CD146, a soluble form of CD146 (sCD146, 105 kDa) has also been found in human plasma and in the supernatant of cultured human endothelial cells (PMID: 9462829; 19229070; 16374253; 14597988). This antibody detects a band at approximately 120 kDa that corresponds to the molecular weight of glycosylated CD146. Treatment of lysates of HepG2 cells and L02 cells with PNGase F, which removes oligosaccharides from N-linked glycoproteins, led to a down-shift of the detected band.

Notable Publications

| Author | Pubmed ID | Journal | Application |
|-----------|-----------|--------------|-------------|
| Xun Xi | 33865812 | Exp Cell Res | FC |
| Yue Cheng | 37315748 | Cell Signal | WB |

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

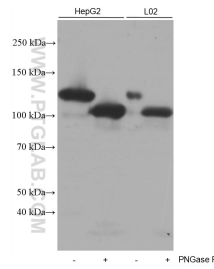
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA) E: proteintech@ptglab.com W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

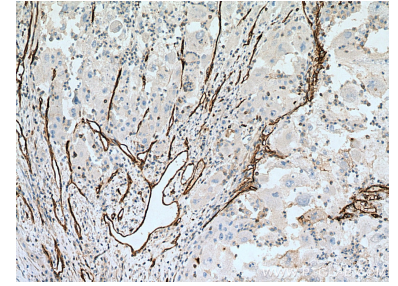
Selected Validation Data



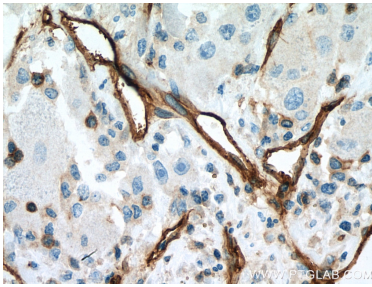
A375 cells were subjected to SDS PAGE followed by western blot with 66153-1-Ig (CD146/MCAM antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



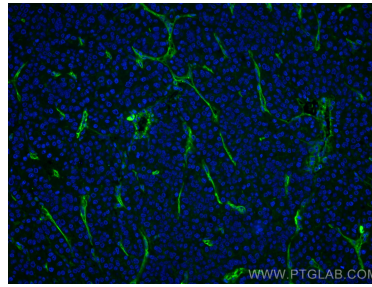
Untreated and PNGase F-treated lysates of HepG2 cells and L02 cells were subjected to SDS PAGE followed by western blot with 66153-1-Ig (CD146/MCAM antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. PNGase F was obtained from Atagenix (cat.NO. ata808).



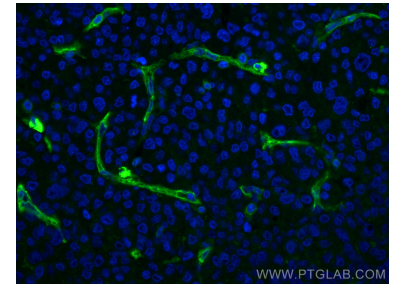
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66153-1-Ig (CD146/MCAM antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66153-1-Ig (CD146/MCAM antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed human liver cancer tissue using CD146/MCAM antibody (66153-1-Ig, Clone: 4D8A9) at dilution of 1:2000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed human liver cancer tissue using CD146/MCAM antibody (66153-1-Ig, Clone: 4D8A9) at dilution of 1:2000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).